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Studies on Unpaid Premium of Community-based Health Insurance Demonstration Projects

I. INTRODUCTION

Since health insurance was introduced in Korea in 1977, approximately 35.3 percent of the total population has been covered by the end of June 1982. If the medical aid program is added, 41.6 percent of entire population is receiving benefits by either insurance or national aid programs.

The employment insurance, normally called "Class I", covers 82.6 percent of the target employees which means all enterprises with 16 employees and more are covered. Insurance for government officials and private school teachers and staff covers 100 percent of the target population.

Community-based health insurance, normally called "Class II", merely covers the population in six counties where governmental demonstration projects are operating and these cover 2.1 percent of countrywide target population.

Government has commenced community-based health insurance demonstration projects in three counties, Houngchun *Gun*, Gangwon *Do* (province), Okgu *Gun*, Jeollabuk *Do* and Gunee *Gun*, Gyungsangbuk *Do*, from 1 July 1981 and expanded the program to another three counties, Kanghwa *Gun*, Gyungki *Do*, Boeun *Gun*, Chungcheongbuk *Do* and Mokpo City, Jeollanam *Do* from 1 July 1982.

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Table 1. Population of the Six Demonstration Areas in 1982

Gun	Population	Community-based Insurance Covered	
		Population	Percentage
Hongchon	100,579	72,093	71.7
Okgu	106,639	69,845	65.5
Gunee	53,495	37,854	70.8
Kanghwa	88,851	75,963	85.5
Boeun	77,625	56,092	72.3
Mokpo (city)	213,852	124,650	58.3
Total	641,041	436,497	68.1

Although the employee, government officials and private school teachers and staff insurances are settling down gradually, community-based health insurances has revealed many problems through the almost two year demonstration program period.

Among the very important problems for the community-based health insurance, the biggest problem is lower rate of premium collection. The premium collection rates by the three counties as of September 1982 are 64.7 percent in Hongchun *Gun*, 54.6 percent in Okgu *Gun* and 70.0 percent in Gunee *Gun*. Since the operational expense of the local insurance society is fully supported by national funds the premiums collected can be used for benefit costs.

However, as the premium collection rate is too low, shortage of the insurance society fund has been increasing to date. Government has loaned a part of the shortage of insurance fund to three counties in 1982, however, no improvement has been found and the shortage of the fund has become greater up to date. Therefore the Korea Institute for Population and Health (KIPH) has been studying the reason for unpaid premiums.

The first three demonstration areas eg. Hongchun *Gun*, Okgu *Gun* and Gunee *Gun*, were selected as objective areas because the expanded three area's demonstration period is too short to evaluate. In addition, the first three counties have revealed a sufficient number of problems which are very valuable to study for national strategy application.

II. OVERVIEW OF COMMUNITY-BASED HEALTH INSURANCE DEMONSTRATION PROJECTS

A. Management of the Insured

Management of the insured is implemented by the County Insurance Society under the cooperation of local government. Due to the shortage of manpower, however, and inefficient cooperation of the local government administrative office, the implementation is proceding inefficiently.

B. Imposition of Premium

The first three demonstration counties have a system of three categoried groupings of the residents according to their living level;

Grade 1. Poor grade and the premium is 400 *Won* per person per month.

Grade 2. Moderate grade and the premium is 600 *Won* per person per month.

Grade 3. Prosperous grade and the premium is 800 *Won* per person per month.

Note : The second three counties (expanded) have a seven graded system in accordance with the assets and income.

This system consist of two sections: Basic and income premiums.

1. Basic premium is imposed on every household, 500 *Won* per month in Kanghwa *Gun* and Boeun *Gun* and 1,000 *Won* in Mokpo City. Basic premium per person is imposed on everyone, 250 *Won* per month in Kanghwa *Gun* and Boeun *Gun* and 500 *Won* in Mokpo City. The above two basic premiums with five family members in average make 1,750 *Won* per household per month in Kanghwa *Gun* and Boeun *Gun* and 3,500 *Won* in Mokpo City.
2. Income tax, farming land tax, land tax and building tax are classified to seven subgroups and add designated rate of premium.

   In total, a household with five family members in Kanghwa *Gun* and Boeun *Gun* are charged 3,445 *Won* per month and 6,325 *Won* in Mokpo City.

   Later, Mokpo citizens appealed to rearrange the heavy premium rates, so, the Ministry of Health and Social Affairs has approved their request.

C. Collection of Premium

The residents pay their premiums volunterily, however, the voluntery payment rate was very low, and the premiums are being collected by insurance society staff or others. In cases where the Village Chief or Women's Club leader collect the premium, they are paid three percent of the collected amount as commission.

D. Benefit

There are statutory benefits and allowances. Statutory benefit includes medical services at designated medical facilities. Allowances include delivery and funeral expenses and 10,000 *Won* is paid per case. Outpatients have to pay 30 percent of the cost and if they go to hospital first they have to pay 50 percent. Inpatients have to pay 20 percent of the cost. Health centers and sub-centers receive 400 *Won* per visit from the patient and community health post 180 *Won* per visit from the patient.

E. Health Care Delivery System

Government has designated all health facilities and clinics in the demonstration area as primary health care facilities, designated hospitals in nearby cities as secondary care facilities, and general hospitals and special hospitals such as leprosy, mental etc. as tirtiary care hospitals.

Without referal slip from lower chanel no patient can go to the hospitals or general hospitals. (Insurances for the employment, government officials and private school teachers do not have health care delivery system).

F. Insurance Fund

Government supports all operational expenses for Insurance Societies and premiums collected can be used for medical care cost.

G. Insurance Society

Each *Gun* (county) has established Community-based (Class II) Health Insurance Society and each society has seven-ten staff at the office and assigned one person to each *Myon* or *Eup* to perform all duties of the insurance scheme.

III. SURVEY DESIGN

In the first three demonstration counties 5,258 households or 13.9 percent of the total have not paid their premium since the demonstration projects have commenced and the households which have not paid premium by *Gun* are 1,272 or 8.9 percent in Hongchun *Gun,* 3,381 or 22.3 percent in Okgu *Gun* and 605 or 7.1 percent in Gunee *Gun.*

Among the 5,258 households, a ten percent sample was selected and these areas were classified into three categories:

a. Remote area: Transportation is inconvenient, population density is very low, medical facility is none existent or rare and medical care utilization is low.

b. *Eup* area: Population density is comparatively higher, living level is relatively higher, transportation is convenient, medical facilities exist and medical care utilization is higher than other rural areas.

c. *Myon* area: Miscellaneous areas.

According to the above criteria, 525 households from 21 survey areas were selected by systematic sampling method. Among the selected 525 households, the interviewer could not meet adults from 22 households, therefore actually 503 households were interviewed. High school graduate females with experiences were recruited as surveyors and 12 persons were finally selected. They were allocated in three counties, four for Hongchun *Gun,* six for Okgu *Gun* and two for Gunee *Gun* in accordance with the number of households to survey.

Questionnaires with 60 inquiries related to unpaid premium were used and the major sections of the questions were 1) socioeconomic factors of the area 2) family status of the unpaid premium households 3) acceptance of health insurance 4) recognition and attitude of the residents to premiums unpaid 5) reason for unpaid premium.

Training for the surveyors was conducted and supervised by KIPH staff during a field survey. The field survey was conducted from 15 November to 24 November 1982.

IV. RESULT OF THE SURVEY

A. General Situation of the Households Surveyed

a. Households of unpaid premium

Households with entirely unpaid premium since the demonstration project has been

commenced are shown in Table 2.

Table 2. Households Unpaid Premium

Gun	Number of Household	Percent
Hongchun	1,272	8.9
Okgu	3,381	22.3
Gunee	605	7.1
Total	5,258	13.9

b. Family members of the unpaid premium households

Family with six to eight persons was the highest rate with 41 percent of the total and four to five family the next with 32 percent. Among the total, one household had 13 members in Hongchun *Gun*. Households with many family members should be considered as one of the reasons of unpaid premium because in the case of eight members family, which belongs to Grade 2, they have to pay 4,800 *Won* every month and this is burdensome to pay in rural area.

Table 3. Family Members of the Households Unpaid Premium

Family (persons)	Number	Percent
1 ~ 3	92	22.8
4 ~ 5	129	32.0
6 ~ 8	166	41.2
9 ~ 10	15	3.7
11 ~ 13	1	0.2
Total	403	99.9

Note: Of 503 households surveyed, families of 100 households had mixed coverage with other insurance such as employment, government officials or private school teachers and 403 households have pure class II insured families.

c. Family members insured with other kind of insurance

Among the 503 households surveyed 99 households or 19.7 percent had other kind of in-

surance such as employment, government officials and/or private school teachers among their family.

This may also be counted for unpaid premium because the family member can utilize their family's card legally or illegally because no photograph is attached on the insurance card and hospitals and clinics do not check the legal use of them.

d. Proportion of other kind of insurance held by the householder

Approximately 11 percent of the total householder has been insured by employment insurance (Class I) and five percent of them by government officials or private school teachers. The detail is shown in Table 4.

In other words approximately 16 percent of the total householders were insured by other kind of insurances. This situtation is likely to be one of the considerable factors among unpaid premium because most of the family members would have chance to utilize their householder's insurance card illegally.

Table 4. Insurance by Householder

Insurance	Number	Percent
Class I	54	10.7
Class II	423	84.1
GO & T	25	5.0
No Response	1	0.2
Total	503	100.0

Table 5. Age Group of Householder

Age Group	Number	Percent
21 ~ 30	9	1.8
31 ~ 40	54	10.8
41 ~ 50	181	36.1
51 ~ 60	147	29.3
61 and Over	111	22.1
Total	502	100.1

e. Age of the householder

The age of the householder can effect family members to utilize modern medical facilities.

The above table explains that the younger group aged under 40 are merely 12.6 percent and the older group aged 40 and up are 87.5 percent of the total householders.

These older aged householders would suggest or direct his family members not to utilize modern medical facilities but rely on drug store, herb medicine, self-treatment and or superstition, because of their economic situation.

f. Education of householder

Education level of householder is closely related to motivate his family to utilize modern medicine.

As shown in Table 6, education with primary school is dominant with 45.3 percent of the total householders and no schooling was 37.2 percent. In other words education of primary school and under was 82.5 percent of the total. Education under middle school was 93.8 percent. Majority of the rural householders were educated under middle school. Under such circumstances, they can not understand the principle of social insurance and modern medicine and this leads to their behavior in not paying their premium.

g. Occupation of householder

Occupation of householders is directly related to the income of the house and premium payment.

Table 6. Education Level of Householder

School	Number	Percent
No Schooling	187	37.2
Primary School	228	45.3
Middle School	57	11.3
High School	26	5.2
College	4	0.8
No Response	1	0.2
Total	503	100.0

Farming, a typical occupation in rural area, was the highest with 60.6 percent and others such as daily labour etc. was the second with 26.2 percent. Both majority occupations do not belong to the moderate group and the economic reason of unpaid premium is understandable.

B. Economic Status

a. Income from rice farming

From the Table 7, approximately 61 percent of the households was engaged in farming, however, Table 8 shows about 41 percent had no income from rice because about 20 percent

Table 7. Occupation of Householder

Occupation	Number	Percent
None	22	4.4
Farming	305	60.6
Fishery	12	2.4
Service	9	1.8
Commerce	21	4.2
Others	132	26.2
No Response	2	0.4
Total	503	100.0

Table 8. Income from Rice Farming

Rice (*Kama*)	Number	Percent
None	205	40.8
1 ~ 30	220	43.7
31 ~ 50	36	7.2
51 ~ 100	35	6.9
100 and Over	7	1.4
Total	503	100.0

Note: 1 *Kama* = 60 Kg

of them have other farming harvest such as corn in Hongchun *Gun* and barley in other places. Approximately 44 percent of them have 30 *Kama* and under throughout the year. Only 8.3 percent of the total have 51 *Kama* or more.

b. Income other than farming

Approximately 53 percent of the household have no income except farming and 42.5 percent had other income of 300,000 *Won* and under. Merely 4.4 percent of the total had 300,001 *Won* and over. Average other income was approximately 50,000 *Won* a year.

c. Land Tax Payment

Land tax is imposed on the family that have land except farming. In most cases, the premium is rated by tax amount.

Table 9. Income Other Than Farming

Won	Number	Percent
None	267	53.1
10,000 ~ 300,000	214	42.5
300,001 ~ 500,000	6	1.2
500,001 and Over	16	3.2
Total	503	100.0
Average 49,650 *Won*		

Table 10. Land Tax Payment

Land Tax (*Won*)	Number	Percent
None	247	49.1
5,000 and Under	167	33.2
5,001 ~ 10,000	57	11.3
10,001 ~ 20,000	25	4.9
20,001 and Over	7	1.4
Total	503	99.9
Average 2,690 *Won*		

About 49 percent of the total did not pay land tax and 33.2 percent paid 5,000 *Won* and under. In average approximately 2,700 *Won* was paid a year as land tax.

d. Building tax payment

Table 11 explains building tax payment which is the base of the premium rate.

Approximately 48 percent of the total have not paid building tax and 43.7 percent have paid 10,000 *Won* and under. In average, each household paid 3,090 *Won* for building tax a year.

e. Farming land tax payment

Since more than 60 percent of the residents were farmers, farming land tax payment is greatly related with premium allocation.

Table 11. Building Tax Payment

Building Tax (*Won*)	Number	Percent
None	242	48.1
5,000 and Under	153	30.4
5,001 ~ 10,000	67	13.3
10,001 ~ 20,000	33	6.6
20,001 and Over	8	1.6
Total	503	100.0
Average 3,090 *Won*		

Table 12. Farming Land Tax Payment

Farming Land Tax (*Won*)	Number	Percent
None	353	70.2
10,000 and Under	33	6.6
10,001 ~ 30,000	40	8.0
30,001 ~ 50,000	12	2.4
50,001 ~ 100,000	65	12.9
Total	503	100.1
Average 14,685 *Won*		

Approximately 70 percent of the total has not paid farming land tax and about 13 percent have paid the highest rate with 50,001-100,000 *Won*. This indicates that most farmers cultivate the land at tenant status and those who have extensive farming land can give tenancy to the poor people. This is one of the main reasons that the premium collection rate is so low.

V. PROBLEMS AND SOLUTIONS

Problem 1) Incapability of Premium Payment

According to the report from Ministry of Health and Social Affairs (MOHSA) titled "Evaluation report (II) of the Class II Health Insurance Demonstration Project, 1982", approximately 21 percent of the premium unpaid households in three *Guns* do not have capability to pay premium. The result of this survey has shown similar *phonomenon*. Unless this kind of basic problem is solved, premium collection will not be improved.

To solve this problem the scope of the national medical aid program should be extended from current 10 percent to 20 percent of the total population including above incapable group. Additional fund to extend above should be collected from luxuary entertainments raising their tax rate.

Problem 2) Big family size

Approximately half of the total has six or more family members. Most households should spend their income to support their family. Strengthening of family planning to keep minimum family members particulary in rural area is required.

Problem 3) Mixing with other insurance

Approximately 20 percent of the surveyed household members had other kind of insurances. This provides opportunity to use family member's insurance card illegally. Photographs of the insured should be attached on the insurance card and hospital and/or clinic's reciepiants have to identify the patient with the attached photograph.

Problem 4) Lower income from farming

Approximately 61 percent of the surveyed were farmers, however, the income from farming was so low that 43.7 percent of the farmers had 30 *Kamas*/Year or under. Efforts to make side

income through poultry, fruit-culturing, and hand work etc. should be developed to raise their income.

Problem 5) Lower level of education

Characteristics of the rural people is the lower level of education. Approximately 45 percent of the householders was educated primary school and under. Frequent training particularly on social health insurance should be strengthened.

Even not included in this survey, the common problems on community health insurance identified by other researchers and government officials concerned are as follows. Solutions for each problem are included.

A. Complaint about Premium Imposition

The aforementioned MOHSA Report says approximately 23 percent of the premium unpaid households have complaints about the premium imposition method. The local insurance societies have allocated total households into three groups; approximately 10 percent of Grade 1, approximately 80 percent Grade 2 and approximately ten percent of Grade 3. With slight dif- the rate the three demonstration counties have imposed premium according to above method. The above unified method has worked against the principle of income redistribution and brought many complaints.

In case of foreign countries, the income report is relatively accurate, therefore, imposition of premium has no problem. In Korea, however, there are many hidden income.

Not three or seven grades but a classification as detailed as the tax rate is required. And the final decision of the premium amount for each family must be made by the Village Development Committees.

B. Other Complaints

The followings are the principal complaints regarding unpaid premium;

a. While other insurance schemes share the premium with employer or government, community-based health insurance has no sharing system and the insured has to pay all of the premium.
b. Community-based health insurance patients have to follow medical care delivery system, while other insurance scheme do not.

c. Designation of medical facilities for the community—based health insurance is limited.

Strengthened education via mass media and effective explanation of health insurance for the villagers showing the reason of the complaints are needed. For example;

a. Even other insurances have premium sharing systems the actual costs which the insured pays are equal to community—based insurance.
b. Sometimes other insurance premiums are higher than community-based health insurance,
c. The medical care delivery system is more helpful for the insured because it costs less than directly going to the hospital,
d. Designation of a limited number of medical facilities is to save insurance fund.

C. No Implementation of Compulsory Premium Collection

Though the law authorizes compulsory premium collection, like tax, local insurance societies do not implement it due to the likely effect on the people.

Legal weak point of the related laws should be supplemented as soon as possible and those who do not pay the premium without any reason for long time should be under compulsory action so that let the people know the premium has semi-tax characteristics.

D. Shortage of Health Manpower in Health Facilities

As of June 1982, out of 218 health centers, physicians as health center directors are assigned to 156 places or 71.5 percent of the total.

On the Health Center Law, the health center directors has to supervise all medical and clinical activities in the area as well as other activities related to health.

There are 1,321 health sub-centers throughout the country and government will fillup these positions with young physicians called public health doctors very soon. However, many problems have been identified with these young doctors as follows:

a. These young doctors have to meet the patient without any clinical experiences and the residents complains about their capability.
b. These young doctors are recruited as public health doctor to work in rural area for three years for the duty of military service, therefore, the community health is very often neglected by some of them.
c. Urban manner or attitude of these young doctors is not accepted by rural elders.

d. These public health doctors are assigned to their position without any consideration of health care delivery system or referal system, therefore, no followup actions are taken when their patients are reffered.

e. Public health doctors are working alone at the posts without clinical assistants.

Solutions

a. Salary of health center directors must be reasonably raised equal to clinical doctors in the moderate hospital and shortage of the fund must be supplemented by local governments, then all health center directors must be assigned with physicians.

b. Public health doctors must be assigned to the place where their university hospital can be utilized as referal hospital, therefore, their clinical practice can be continued throughout public health doctor's working period.

c. One nurse-aid should be assigned for each health subcenter as clinical assistant.

E. Shortage and Worn-out of Medical Equipments in Health Facilities

Inventory for the shortage and worn-out equipment should be conducted and supplement or replacement of the worn-out medical equipment should be conducted by utilizing foreign loan.

F. Low level of Medical Fee Schedule

Medical Fee Schedule describes that visiting fee must applied by health facilities as follows:

Health Center and Health Sub-center : 1,200 *Won*

Comunity Health Post : 800 *Won*

With the above rates, cost-effective operation of health facilities is extremly difficult. Furthermore, when the patient receive three days drugs at 1,200 *Won* or 800 *Won* they doubt the quality of treatment and drugs given by health facility.

Raise the health facility fee schedule to practical level will improve the operation of health facilities and renew the trust by the residents.

G. Concentration of Medical Facilities

While the population of rural area is 42.8 prtcent of the total, (KIPH, *Population and Health Index*, 1981, p13), hospitals and clinics in rural area are only 17.7 percent as of 1980, (SNU Hospital Research Institute, the *Journal Hospital Services*, January 1982).

One of the principal reason of low premium collection rate is due to low accessibility to medical facilities. Therefore they relied on drug store, self-treatment and or superstition.

Government has to invest in the improvement of medical facilities in rural areas. Inducement of civilian medical facility to rural area was found difficult due to inadequate environment and social factors. Therefore, government has to develop a comprehensive health service center at *Gun* level enabling them to provide comprehensive health services including maternity and child health and family planning acctivities so that they may treat majority of the rural patient at *Gun* level.

VI. CONCLUSION

To improve current problem in some community-based health insurance, attention of the government officials concerned is invited to following alternatives;

a. Those who cannot pay premium should be included in medical aid program.
b. Temporary loan or wave system of premium for the poor group in emergencies should be established and insurance cooperation fund should be utilized, if necessary.
c. Premium imposition method should be improved not categorizing the insured but according to detailed income level, if possible.
d. Function of health centers and health sub-centers should be strengthened assigning physicians for all health center directors and improving public health doctors working environment and conditions.
e. Three-fold medical fee schedule such as general medical fee, insurance fee and medical aid fee should be unified as soon as possible.
f. A health care delivery system should be established and utilized by all insurance systems.

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